# School to Career: Planning for the Future A Guide to Careers at the Department of Environmental Protection

State of Connecticut
Department of
Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
Arthur J. Rocque, Jr., Commissioner

## School to Career: Planning for the Future

The mission of the Department of Environmental Protection (DEP) is to conserve, protect and improve the natural resources and environment in the state of Connecticut. The DEP is responsible for controlling water, air and land pollution in order to protect the health, safety and welfare of the people of Connecticut while preserving and enhancing the quality of life for present and future generations.

To accomplish this mission the DEP has many offices focused on researching, regulating, and conserving our natural resources. The DEP also informs the public on the need to protect our environment, so the public will in turn participate in protecting our natural resources. The many specialists and individuals needed to make this happen are illustrated in the diversity of career opportunities listed in this pamphlet.

Students are invited to use this publication to see the many opportunities available and to help make their career choices in environmental protection. The jobs described in this pamphlet are just some of the specialized areas utilized by the DEP. The background on areas of study and additional skills has been provided to you by professionals in the fields mentioned. Keep in mind the DEP also employs people in career areas such as graphic designers, printing clerks, communication officers, clerical staff, telecommunication, legal and accounting personnel.



STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 79 Elm Street Hartford, CT 06106-5127 (860) 424-3000

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See page 8 for chart of educational and skill requirements for listed job titles.

#### PUBLIC OUTREACH

#### **Communications & Education**

Provides technical support and central services to other offices in the Department by maintaining and coordinating agency-wide environmental education, public outreach and communication programs; and coordinating the development and dissemination of nontechnical department publications.

- Prepares and disseminate press releases and other public information
- Responds to public and press inquires
- Plans and provides special events
- Provides educational resources and training activities to primary and secondary teachers
- Integrates environmental education material and issues into school curricula
- Provides training to municipal officials

#### **Environmental Geographic Information Center**

- Collects, monitors and maintains information on the land surface, water resources, earth materials, natural environmental hazards, plants, animals and endangered species
- Develops natural resource models to manage and better regulate use of state's resources
- Provides technical assistance and makes natural resource information available through published maps, reports, digital data, and documents.

#### Job Titles:

Environmental Analyst (Education)
Environmental Analyst (Planning)
Environmental Analyst (Biological Sciences)
Environmental Analyst (Earth Science)
Environmental Intern
Communications Officer



#### What do you like best about your job?

"Seeing people gain understanding about their environment."

Environmental Analyst

"Adding to the beautification of Connecticut's historical sites." Environmental Protection Maintainer

#### Office of Long Island Sound Programs

Coordinates services and programs related to the protection and restoration of the Sound. Works in cooperation with other state agencies on the development, use and study of the Sound.

- Carries out field and technical work for improvement of tidal and aquatic habitats
- Develops materials for the management of coastal resources and control of non-point source pollution
- Administers grant program to promote research of and education about the Sound
- Coordinates municipal Harbor Management Planning and urban planning issues and municipal training workshops
- Promotes access to lands and areas adjacent to the Sound
- Provides for public outreach programs to increase knowledge and understanding of Sound issues
- Administers Long Island Sound license plate program
- Enforces compliance of environmental regulatory programs

Additional skills required for these positions include oral and written communication abilities, public speaking, customer service, marketing, naturalist and outdoor experiences, statistics, computer abilities, recreation and leisure services.

It is suggested that students participate in areas of interest through volunteer activities with local organizations to gain experience and knowledge of these topics.



#### What do you like about your job?

"I was interested in science, and working outdoors. I enjoy putting together data collected in the field, to make geologic maps by computer.

I am responsible for the development of education materials about our local geology."

Environmental Analyst

### WATER QUALITY MANAGEMENT

Protects and restores surface and ground waters for the protection of water supplies, human health and aquatic life. Enhance water-based recreation and promote pollution prevention.

#### **Municipal Facilities and Grants Section**

- Manages the use of Connecticut's Clean Water Fund and ensures timely award of grants and loans for municipal pollution control and river restoration needs
- Oversees municipal pollution control construction activities

#### **Planning and Assistance Section**

- Develops site specific quality goals for surface and ground waters
- Monitors and assess the quality of the state's water resources
- Develops programs to reduce toxic water problems in Long Island Sound
- Develops programs for the protection and restoration of rivers, lakes, ground water and related resources

#### **Inland Water Resources**

- Helps municipalities implement and enforce programs for wetland protection and floodplain management
- Regulates diversions of water in wetlands and watercourses, dam construction and repair, and work within channel encroachment lines
- Plans and implements flood and erosion control projects

#### **Permitting and Enforcement**

- Regulates waste water and sewage treatment systems
- Oversees cleanup of contaminated sites
- Investigates and corrects contamination of drinking water supplies
- Administers projects to reduce land based pollution from urban, agriculture and industrial areas

#### **Job Titles:**

Environmental Analyst
(all areas)
EP Field Inspector
Civil Engineer (Environmental)
Engineer Intern
Sanitary Engineer
Environmental Intern

Additional skills required for these positions include oral and written communication abilities, public speaking, customer service, marketing, naturalist and outdoor experiences, statistics, computer abilities, recreation and leisure services.

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#### What do you like best about your job?

"The fact I am constantly learning.

There are always more plants that
I need to identify and figure out,
more birds to identify...and
more classes that I can take.
I chose this career because I
wanted to work in a technical field and
I didn't want to sit in an office all day."

Environmental Analyst

# What skills would be helpful in preparing for this career?

"I chose this career, because I was good in math and science. I like it because of its flexibility."

Civil Engineer III

#### Natural Resources

Protects and manages fish, forests and wildlife for public use and enjoyment.

#### **Fisheries**

- Manages inland and marine fish populations for commercial and recreational fishing
- Protects aquatic habitats through environmental review of proposed projects
- Restores aquatic habitats
- Stocks variety of fish in state waters
- Provides educational programs promoting the appreciation of aquatic resources



#### **Forestry**

- Manages state-owned forests for multiple uses
- Assists private land owners and wood products industry
- Manages forest fire prevention programs and controls fires
- Certifies forest practitioners doing business in Connecticut

#### Wildlife

- Enhances habitats on state-owned lands
- Manages wildlife populations, including threatened and endangered species, for diversity and compatibility with habitat and land use
- Assists the public with habitat enhancement and wildlife management
- Regulates hunting seasons and bag limits and ensures safe and ethical hunting practices as well as manages public hunting opportunities
- Offers education and awareness programs to promote the understanding of wildlife and their habitats



Fish Hatchery Supervisor Fisheries Biologist EP Maintainer EP Resource Technician Forester Wildlife Biologist Environmental Analyst (Biological Sciences) Environmental Intern



Additional skills required for these positions include oral and written communication abilities, public speaking, customer service, marketing, naturalist and outdoor experiences, statistics, computer abilities, recreation and leisure services.

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#### Why did you choose this career?

"I enjoyed fishing and needed to be in an outdoor setting."

Fishery Biologist

"I wanted a job that was related to biology. The change of seasons brings a variety of jobs to the hatchery."

Environmental Protection Maintainer



#### What do you like best about your job?

"This career is rewarding because it allows you to work towards meaningful accomplishments that help balance wildlife concerns with human concerns.

You can truly make a difference for wildlife and people."

Wildlife Biologist

"Working outdoors in a career that gives me flexibility and independence and allows me to directly improve our environment."

Environmental Analyst

#### AIR QUALITY MANAGEMENT

Works to maintain and improve air quality so health standards are met while the economic development of the state is not impeded; pollution prevention and compliance assurance.

#### **Planning and Standards**

- Provides technical support, strategic planning and implementation for air quality issues
- Prepares and proposes regulations and policies
- Develops air pollution emission and ambient standards
- Develops and implements transportation strategies
- Performs air quality modeling and analyses in support of environmental permitting requirements

#### **Engineering and Technical Services**

- Issues permits that meet federal and state air quality laws
- Offers technical assistance on emission reduction through pollution prevention, control technologies and economic strategies

#### **Compliance and Field Operations**

- Assures sources of air pollution comply with federal and state air quality standards and regulations
- Inspects regulated facilities and investigates complaints
- Operates and maintains statewide air monitoring network

#### **Job Titles:**

Air Pollution Control Engineer/Technician Environmental Analyst/Intern (all areas) Radiation Control Specialist/Physicist

#### **Radiation**

- Participates in decommissioning monitoring activities
- Responds to complaints, incidents and accidents that involve radioactive material or ionizing radiation
- Regulates, inspects and provides compliance assistance to users of radioactive materials and x-ray machines

Additional skills required for these positions include oral and written communication abilities, public speaking, customer service, marketing, naturalist and outdoor experiences, statistics, computer abilities, recreation and leisure services.

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#### Why do you like about your job?

"I like making hypotheses and testing them with data.

There's the added benefit that I am contributing to the well-being of society, by helping to understand the biosphere and to minimize the harmful impact we sometimes have.

The best thing about my job is working with other dedicated DEP people.

They are responsive and responsible."

Environmental Analyst

#### OUTDOOR RECREATION

Manages state-owned recreation lands to meet the needs of the public and acquires open spaces for conservation and recreational purposes.

#### **State Parks**

- Manages state parks, including historical sites, forests, monuments, boat launch areas, campgrounds and trails
- Works with municipal park programs to increase recreational programs
- Offers environmental and interpretive programs to the public

#### **Boating**

- Offers boating safety instruction and coordinates a statewide volunteer instructor program
- Trains and certifies boat owners in personal water craft basics and operations
- Develops boating access areas
- Promotes preservation of the environment
- · Maintains navigation aids on Connecticut rivers and lakes

#### **Job Titles:**

Park and Recreation Supervisor EP Maintainer Conservation Enforcement Officer Property Agent Environmental Analyst/Intern Oualified Craft Worker

#### **Open Space Management**

- Acquires land for state parks, boating and fishing access and other recreational uses
- Manages DEP-owned and leased lands
- Coordinates state and federal funding programs for municipal outdoor recreation and open space development

#### **Conservation Law Enforcement**

- Enforces fish, game, boating, commercial fishing and off-road vehicle regulations
- Acts as Deputy Special Agents for U.S. Fish and Wildlife Services
- Carries out Park and Forest law enforcement activities
- Conducts aviation patrol, boating accident investigations and provides for criminal law enforcement investigations

Additional skills required for these positions include oral and written communication abilities, public speaking, customer service, marketing, naturalist and outdoor experiences, statistics, computer abilities, recreation and leisure services.

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#### Why did you choose this career?

"My career choice evolved over time.

I like the constant changes and challenges. I can deal with 10-15 different topics in less than an hour."

Director of State Parks

#### What do you like about your job?

"I chose this career after I began work as a DEP secretary.
Having already had a college degree, in an unrelated field, I was given the opportunity to advance my position to
Property Agent.
I obtained additional real estate training and entered the position as a Connecticut Careers Trainee."

Property Agent

#### WASTE MANAGEMENT

Works to minimize adverse effects from the treatment, storage, disposal and transportation of solid and hazardous waste and substances. Promotes compliance with laws and regulations and offers technical advice and support to the public.

#### **Waste Planning and Standards**

- Provides technical assistance on composting, pollution prevention, recycling and source reduction
- Conducts training courses for landfill, transfer station and recycling facility operators
- Approves plans for operations of solid waste facilities
- Inspects solid and hazardous waste facilities
- Approves facility closures
- Authorizes disposal of asbestos and other regulated wastes

#### Pesticide, PCB, Underground Tanks

- Regulates the manufacture, sale and application of pesticides
- Administers federal funds for cleanup of fuel release/leaks
- Registers distributors of restricted use pesticides

#### **Job Titles:**

Environmental Analyst/Intern (all areas) EP Field Inspector Engineer Intern

Sanitary Engineer

Emergency Response Coordinator

#### Oil and Chemical Spill Response

- Provides emergency response for spills, hazardous materials and petroleum products
- Provides containment equipment, mobile analysis and operations for spill cleanup
- Provides spill preparedness training and technical assistance

Additional skills required for these positions include oral and written communication abilities, public speaking, customer service, marketing, naturalist and outdoor experiences, statistics, computer abilities, recreation and leisure services.

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#### Why did you choose this career?

"The private-sector 'make-a buck mentality' wasn't doing it for me. I like making a difference in a field for which I have a passion." Environmental Analyst

"I believed there was a future in this line of work. As an Environmental Engineer, I could make a difference."

Environmental Engineer

# What skills are necessary for this career?

"It is necessary to be a good communicator.
You work with a variety of people, professional and nonprofessional, with different perceptions and levels of understanding the regulations and standards necessary for environmental health."

Field Inspector

State Job Titles	Minimum Experience and Training	3eology/Hydro-geology	Siology	Chemistry	Drafting	-arth Science	cology	=lectronics	English	General Science	Machine Shop	Math	hysics	Noodworking	Working Conditions	Salary Range
	BS or MS degree or related technical experience in	Ĭ		Ĭ	-	Ť	-	"	"	1	f		-		Tronking Conditions	Guidi y Italigo
Air Pollution Control	engineering, physical or biological sciences, applied math, or meteorology		х	х					x			х	х	O	office and field work	\$35,527
	Experience in installation, operation, and maintenance of mechanical equipment or college training in electronics,															
	sciences, or engineering technology			х				<b>x</b>	х			х	х	С	office and field work	\$35,527
Cartographers	Experience or education in drafting or engineering drawing				Х	Х			1			Х		С	office and field work	\$35,527
Civil Engineers	BS or MS degree in civil engineering or related experience	Х			Х		Х		I			Х	Х	С	office and field work	\$35,527
	BS degree or related experience in wildlife conservation, law														lexible schedule, good	
Conservation	enforcement, forestry, agriculture or fish culture activities, CPR													h	nealth required, work	
	certification		Х			Х	х		_	х					outdoors	\$45,889
	BS degree in engineering or industrial technology required	Х	Х	Х	Х	Х	х		<b>X</b>	х		Х	Х	С	office and field work	\$38,447
Environmental Analysts	BS or MS degree in biological sciences, botany, ecology, limnology or related experience involving data analysis and interpretation		v				x		x :						office and field work	\$35,527
	BS or MS degree in geology, hydrology, soils science or related		Х		+	+	<del>^</del> +	+	<del>^  </del>	^				-	office and field work	φ35,321
	experience involving data analysis and interpretation	х				х			x :	v I		x			office and field work	\$35,527
	BS or MS degree in environmental sciences or experience in	^			<b>-</b>	^	+		<del>^</del> +	<del>^</del>		Ĥ			office and field work	ψ00,021
	environmental planning	х	x			х	<sub>x</sub>		x :	x		x		o	office and field work	\$35,527
	BS or MS degree in chemistry or other physical science or					Ť	^+	-   -	+			Ĥ		Ť	omee and note work	ψου,υΣι
-	related laboratory experience			х			х		x :	x		х	х	c	office and field work	\$35,527
	BS or MS degree or technical discipline related to the	х	х		х				x			х			office and field work	\$29,287
Environmental Field	College not required; but education or experience in the															
Inspectors	sciences is helpful	х	х	х	х	х			<b>x</b> :	х		х		C	office and field work	\$29,287
EP Maintainers	Experience in maintenance and trade work helpful				Х				<b>X</b>	Х	Х	Х		x fi	ield work	\$26,129
	Experience in technical fishery or wildlife management activities														vork outdoors; site	
	or related college training		Х	Х			Х		х			Х			esidence	\$32,232
	BS in fisheries science or experience in the care and														vork outdoors; site	
	propagation of fish				Щ	4	Х	_	4	4	1	Щ	Ш	r	esidence	\$37,338
	BS or MS degree in fisheries biology or related experience,															040.054
Fishery Biologists	capable swimmer		Χ	Х	$\vdash$	4	Х	4	Х	4	+	Х	$\sqcup$	_	vork outdoors; boating	\$40,251
Forestore	DC or MC degree in forest management or related average		,	,								,			vork outdoors; site	¢40.054
	BS or MS degree in forest management or related experience		Х	Х	$\dashv$	+	Х	+	x :	X	+	Х		r	esidence; heavy tools	\$40,251
	Experience in the operation and maintenance of a public park/outdoor recreation facility or related college experience,														work outdoors: sits	
	CPR certification		v						٠l.			,			vork outdoors; site esidence	\$42,645
	BS or MS degree in sanitary engineering or related experience	-	X	Х	v	+	Х			x x		X	~		office and field work	\$35,527
	BS degree in wildlife management or related experience			X		+	х	_	х х	_	+	Х	^		office and field work	\$40,251

# Looking for more information about opportunities in the DEP?

Search our website for in-depth job descriptions at http://dep.state.ct.us Select "Job Opportunities" for current listings of permanent full-time or seasonal positions. Seasonal positions last up to six months and may be a great opportunity to try a job out.

If you have any questions you may also contact the following departments for assistance in understanding job descriptions, title changes and more.



Human Resources (860) 424-3006

Affirmative Action (860) 424-3035

You may also learn more about other State of Connecticut job opportunities and exam procedures by visiting the Department of Administrative Services at www.das.state.ct.us